History and Organization of Pretreatment Review, a Dental Utilization Review System

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THIRD PARTIES that administer private and public dental funds have developed a prospective utilization review system called pretreatment review. Depending on local usage, pretreatment review is also known as precertification, prior authorization, and predetermination of benefits. In pretreatment review, dentists are asked to submit treatment plans (claims) and radiographs for all courses of treatment over a certain dollar cost, usually $150. The third parties certify patients' eligibility for requested services under specific group contracts and, based on the opinion of dental consultants employed by the carriers, determine that services are necessary and appropriate. The patient and provider are then informed of the level of reimbursement for covered benefits.

The literature on pretreatment review is limited to two types of articles. First are reports in business journals and trade newspapers which briefly describe the pretreatment review system and explain its importance in the control of program expenditures and the quality of care (*1–9*). Other publications, mainly in the public health area, describe the pretreatment review system in greater depth and try to evaluate its effectiveness. The best descriptive study is a report by Nash and co-workers (*10*) which details the processing of dental claims within several insurance companies. Studies on the effectiveness of pretreatment review programs (*11–27*) focus on methods of identifying and controlling treatment planning abuses. For example, in his study (*19*) of United States Administrators, a fiscal intermediary, Friedman found that 29 percent of all claims received have one or more inappropriate or unnecessary services and that the reduction in total claim charges resulting from the review of claims approaches 6 percent.

The purpose of this paper is to describe the history and present organization of pretreatment review programs within the dental insurance industry. We emphasize the structural limitations on pretreatment review resulting from the multiple and sometimes competing goals within carrier organizations.

Methods

Data were collected from structured interviews with executives of four insurance companies and extensive observations of the pretreatment review systems at two of these carriers. Three of the carriers were national commercial insurance companies with diversified operations in life and health insurance, real estate, and corporate lending. The fourth carrier is nonprofit and serves a metropolitan population in the Northeast. It

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is concerned with health insurance only. In 1977 the four companies covered more than 9 million people and received annual dental premiums worth more than $600 million.

The structured interviews were conducted with the officials responsible for the administration of the pretreatment review programs at each organization. The instrument used in the interview was based, in part, on one developed by Nash and co-workers (*10*).

Data on the administration of dental claims were also collected during weekly observations of the claims processing offices of two carriers over a period of 15 months. Finally, in order to gather more detailed information on dental consultants' activities, three consultants, who review claims for the same two carriers, were observed during several consulting sessions for a total of 20 hours.

History and Growth of Dental Insurance

A better understanding of pretreatment review systems can be gained by tracing the growth of dental insurance in the three types of carriers which currently dominate the dental insurance market: dental service corporations, commercial carriers, and Blue Cross-Blue Shield plans.

The Taft-Hartley Labor Law, passed in 1947, fostered negotiation for health and welfare benefits through collective bargaining, providing more dollars for medical and dental insurance (*2,28–32*). Although hospitalization and medical insurance coverage expanded from the 1930s to 1950s, coverage of dental care was slow to develop. The demand for financial protection from major systemic illness pre-empted that for dental care, and there were serious questions regarding the insurability and demand for dental care.

Early participation of the labor movement in dental insurance began in 1946 when the St. Louis Labor Health Institute provided dental benefits to the members of Teamsters Local 688. The benefits were financed by the Teamsters Union Welfare Fund, and coverage was comprehensive (*30*). There were also some early efforts by the Group Health Association of Washington, D.C., in 1949 (*31*), Group Health Dental Insurance, Inc. of New York in 1954 (*30,31*), and a few other organizations to include dental care as covered benefits.

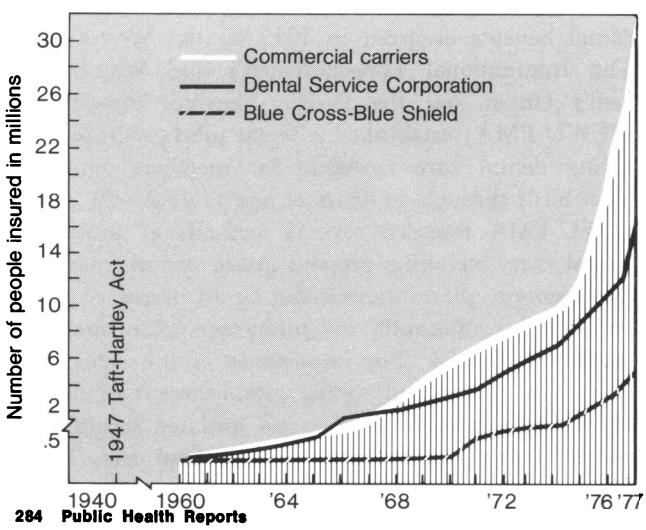
A major commitment of a labor union to prepaid dental benefits occurred in 1955 on the West Coast. The International Longshoremen's and Warehousemen's Union and the Pacific Maritime Association (ILWU-PMA) established a 1-year pilot program providing dental care coverage for members' children from birth through 14 years of age (*1,15,28–33*). The ILWU-PMA founded several methods of providing dental care, including prepaid group dental practices, an indemnity plan administered by an insurance company, and a nonprofit, indemnity-type plan operated by dental societies. The importance of this pilot program was that it led to the establishment of dental service corporations (DSCs) and initiated several important trends in financing prepaid dental care.

Despite these early efforts, enrollment in dental plans grew slowly until the 1960s. In 1961, as more and larger unions negotiated for dental coverage as fringe benefits, commercial carriers entered the dental insurance market in earnest. Because of their size and financial resources, commercial carriers were the largest providers of dental insurance within 3 years. Their growth since then has been impressive.

Blue Cross and Blue Shield (BC-BS) were the nonprofit, service benefit prototypes upon which the DSCs based their organizational and dental plan design (*31, 36*). While BC-BS controlled much of the hospitalization and physician insurance market, they were slow in developing dental care plans. Some BC-BS plans offered dental benefits in the 1960s (*37*), but many plans did not do so until 1975 when dental insurance became a requirement for membership in the national BC-BS organization (*31*).

Since the commercial carriers began offering dental plans, dental insurance has grown steadily. As figure 1 shows, commercial carriers maintain the largest share of the dental insurance market. In 1976, the commercial carriers insured 26.6 million people under 27,900 dental contracts; the total benefit expenditure was about $1.1 billion (*38*). The growth of DSCs has also been impressive. In 1979 there were 43 independent dental service corporations in the United States loosely tied to a parent organization in Chicago, Ill., called the Delta Dental Plans Association. In total, the DSCs are the second largest dental insurers in the country, and in 1976 they covered some 12 million people with an annual benefit expenditure of $285 million (*39–52*). Although BC-BS dental plans are available in 50 States, as a relative newcomer to the dental market the "Blues" have a small share of total dental insurance business (*32*) with an annual benefit expenditure of $176 million. Also, their growth over the past 8 years has been modest (fig 1). Prepaid group dental plans and self-insured trusts, although two of the first forms of prepaid dental insurance, together cover less than 1 percent of the insured population.

Figure 1. Growth in dental insurance enrollment by type of insurance, 1960–76



History of Pretreatment Review

The funds that financed the early prepaid dental plans came from labor-management trusts, and the officials who administered the funds were concerned with providing the best quality dental care for the monies available. Therefore, when the ILWU-PMA dental program was established, the organizers set up an advisory committee to monitor the quality of care (*35*). The DSCs were also required to monitor the quality of care and dental costs and, in 1955, based on the experience of the "Blues" with hospitals and physicians, the DSCs introduced the concept of a "participating dentist" agreement (*53*). The purpose of the participating agreement was to assure an adequate number of dentists to provide care. Also, the agreement stipulated that dentists would agree to quality reviews of their work. The major advantage of becoming a participating dentist was potential access to large numbers of patients with dental coverage (*34*).

When the usual, customary, and reasonable (UCR) method of reimbursement was instituted in 1962, participating dentists were required to submit a profile of their fees. If their fees did not, in aggregate, exceed the 90th percentile of fees of dentists in the area, they were accepted as participating members. The payment method offered an additional incentive to become a participating member. Participating dentists were reimbursed their full fee up to the 90th percentile of fees in the area. In contrast, nonparticipating dentists were reimbursed under an indemnity plan with fees usually set at the 50th percentile of UCR fees. However, nonparticipating dentists were free to charge their patients the difference between the fee provided by the DSC and their usual fees. This system encouraged patients to go to participating dentists, since they would have less out-of-pocket expenses. The participating dentist concept provided the DSC with important controls over the fees and performance of practitioners.

An early utilization review program was developed by dental service corporations and currently forms an integral part of the design of all their contracts (*53*). The participating agreement called for dentists to submit claims and radiographs for review of utilization and quality when requested and to open their offices for periodic auditing. The purpose of this review is to monitor expenditures and to improve quality by controlling overuse of expensive and complex services. It

also serves to inform patients before treatment begins what services and charges are covered under the patient's dental plan. In 1955, the DSC in Washington State was screening 5 percent of all claims submitted.

When commercial carriers first entered the dental market in the early 1960s, DSCs represented the only real competition (*32*). Since DSCs emphasized cost and quality control, purchasers of group dental plans expected other carriers to provide the same services. Further, with the advent of Medicare and Medicaid in the mid-sixties Federal and local governments became concerned with utilization review, and cost and quality assurance became a national issue. Therefore, in the early 1970s, the commercial carriers instituted a type of prospective review system, similar to the DSCs.

In 1970, when BC-BS officially entered the dental insurance market on a national scale, quality assurance mechanisms were incorporated into their national guidelines (*54*). BC-BS dental plans adopted a pretreatment review system and instituted a participating dentist option similar to the participating dentist concept of the DSCs. The participation agreement allows BC-BS to audit the offices of member dentists and requires dentists to submit their radiographs for review upon request.

As dental service corporations and insurance companies gained experience in dental insurance, pretreatment review of claims became the dominant method employed by all carriers to inform dentists and patients of covered benefits and, additionally, to control the cost and quality of dental care (*55,56*). The next section describes the administration and organizational setting of pretreatment review at the four carriers.

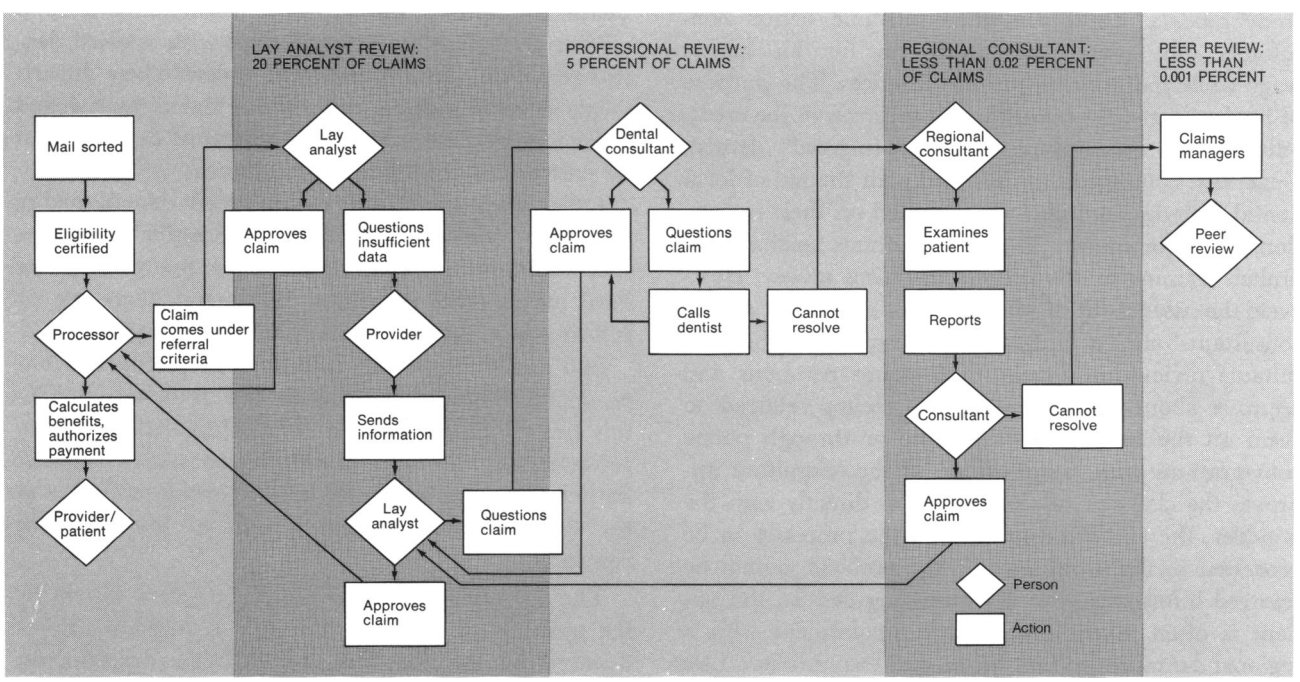
Conducting Pretreatment Review

Eighty percent of the dental claims submitted consist of completed services that do not meet the dollar cutoff that requires pretreatment review. These claims are routinely processed for payment. An additional 5 percent of the total claims that are submitted for payment of completed services (which *may* be under $150) are identified as having a problem. Services on these claims are reviewed for appropriateness and necessity even though the services have been completed. Another 15 percent of claims exceed the $150 limit and these are submitted for pretreatment review. For the most part, the services listed on these claims have not been provided. Therefore, about 2 percent of all claims receive some form of utilization and quality review. It is important to note, however, that all claims are scrutinized for patient eligibility, contractual limitations, and size of fees.

Figure 2 depicts the administrative flow of dental claims from receipt of the claim by mail through to payment of claims. This system varies somewhat from company to company, but it was essentially the same for the four carriers studied.

In the first step of the review process the mail is batched by date and grouped according to the subscriber's contract. The claims are then sent to a clerk

Figure 2. Flow paths in the dental claims review process



who certifies eligibility, contractual benefits, and the patient's dental history. Eligibility status is automatically updated every 3 months by maintenance clerks. The claims then proceed to the processor.

Processors are trained in determining contractual benefits for all groups for whom they process claims. The processor is also trained to use explicit guidelines prepared by dental consultants in selecting claims for additional review. Since processors generally have quotas to meet, the emphasis is on processing claims and remitting payments. The processor handles both the payment and pretreatment claims and refers any claims falling under the referral guidelines to the analyst. About 20 percent of the claims are reviewed by analysts.

The education of the analyst can vary from a foreign dental school degree to a high school diploma. Like the processor, the analysts' training in reading X-rays and reviewing claims is usually informal and on-the-job, and it emphasizes processing claims. The analyst can approve payment of completed services or authorize treatment for pretreatment review claims if no further professional review is required. If professional review is required, the analyst obtains all supporting material and refers the claim to a dental consultant. About 5 percent of all claims submitted are referred for professional review by a dentist.

Professional Review

All treatments mentioned in a claim, not just those in question, are evaluated by dental consultants for appropriateness and need, using X-rays and sometimes study models. There are some full-time dental consultants, but most work part-time for an hourly wage while maintaining private practices. The purpose of having part-time consultants is to preserve the credibility of the consultants as a "wet-fingered" dentist. Generally, consultants are selected with the aid of local dental societies, and choices are based on their reputation in the community. Dental consultants receive some limited training to orient them to claims review. However, the assessment of services relies essentially on the consultants' clinical judgment and expertise. The consultants review an average of 6 claims per hour and approve about 90 percent of the claims referred to them on the basis of X-rays alone or through phone conversations with the provider. If the consultant approves the claim or resolves problems directly with the provider, the claim is sent back to the processor to be processed in the usual way. If the problem cannot be resolved informally with the attending dentist, the patient is often asked to make an appointment with a regional dental consultant for an oral examination. Less than 0.02 percent of submitted claims are sent to regional consultants.

After the patient's examination, the regional consultant reviews the claim and reports to the dental consultant. If the provider and consultant can resolve the claim, the claim is referred back to the processor, and it is processed in the normal way. If the claim remains unresolved, the consultant may recommend referral to peer review. Less than 0.001 percent of the claims are referred to the peer review committee.

Peer Review

State dental societies have a committee of private practitioners who are called upon to arbitrate disputes among insurance companies, dentists, and patients. The peer review committee represents an effort of the dental profession to police itself. Prior to 1976, peer review committees arbitrated both fees and the quality of care. Now, however, some State peer review committees no longer rule on fees since, according to the Federal Trade Commission, this may be an illegal restraint of trade. Another important limitation of peer review committees is that they have no legal power to enforce their decisions.

If the peer review committee cannot resolve the issue, the case may be brought before the State board of dental examiners, the insurance commission, and ultimately the courts. Very few dental claims go beyond peer review.

Organizational Structure of Pretreatment Review

Insurance companies differ in their approach to pretreatment review (fig. 3). Some companies have a completely independent department with salaried dentists responsible for pretreatment review. These departments develop referral criteria for claims review and for monitoring the professional review of dental claims by part or full-time dental consultants.

Other companies have incorporated dental quality assurance within the claims processing function. Licensed dentists review claims under the authority of local claims office managers. In general, there are no full-time salaried dentists in such departments.

Still another approach is to have professional review of dental claims done outside the company. Under this system, claims selected for professional review by reviewers are sent to private dental consulting firms. A flat fee per claim is charged by the consulting firm, and the firm's recommendation is sent to the insurance company.

The operation of the pretreatment review system by the professional review department is substantially influenced by the activities of two other departments,

claims processing and marketing. The interrelationships among these three departments are considered in the next section.

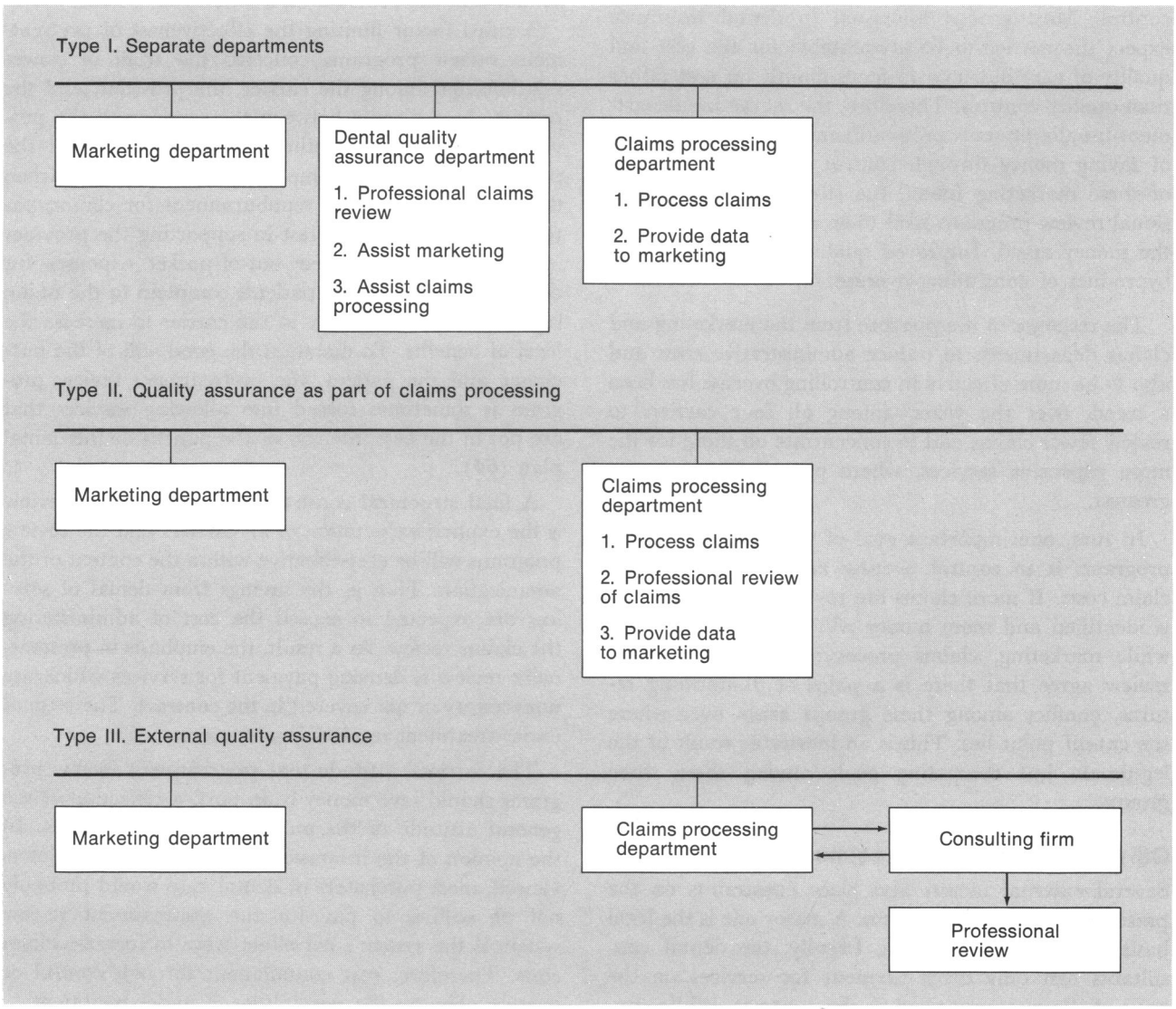
Claims Processing and Professional Review

The primary goal of the claims department of insurance companies, regardless of organizational structure, is to process claims quickly and efficiently. Claims departments have established quotas, claim turn-around times, and budgetary goals. To some extent pretreatment review hampers the achievement of these goals by delaying the processing system. All pretreatment claims must be handled twice for the same course of treatment, before onset and after completion. Further, when professional review by a dental consultant is needed, claims can be delayed for a few days to a month or more. Even though this delay, and associated costs, are generated by pretreatment review, the costs are usually absorbed by claims departments. Claims departments can attempt to work with pretreatment review programs by requesting a revision in the referral criteria that the analysts use so that fewer claims are professionally reviewed. The more common approach is for the claims department to instruct the analysts, who are under its direct administrative control, to refer fewer claims for dental consultant review. The claims processing department may conflict, therefore, with the pretreatment review function in pursuing its own goals.

Marketing and Pretreatment Review

The primary goal of marketing departments is to maximize income from premiums through the sale of

Figure 3. Three types of organizations to conduct professional review of dental insurance claims



dental plans. To remain competitive in the dental insurance market, premiums must remain low, but not at the expense of a reduction in services to the consumer. A critical factor in remaining competitive in premium rates with other carriers is keeping the percentage of total premium dollars that go for plan administration as low as possible. Since the professional review of claims is a large administrative expense (about 15 percent of total administrative costs), pretreatment review programs are under considerable pressure to decrease operating expenses.

However, while marketing staff continually press for lower costs in pretreatment review, the carrier must also remain competitive in the service sphere. Therefore, marketing personnel must emphasize the effectiveness of pretreatment review programs as a means of assuring consumers that high quality dental services are being provided and expenditures are kept under control. Most groups interested in dental insurance expect the carrier to be accountable for the cost and quality of care but tend to focus mainly on cost rather than quality controls. Therefore, the marketing department usually presents pretreatment review as a method of saving money through control of overuse. Because of these marketing forces, the effectiveness of professional review programs tend to be measured in terms of the money saved. Improved quality is often seen as a byproduct of controlling overuse.

The response to the pressure from the marketing and claims departments to reduce administrative costs and also to be more effective in controlling overuse has been a trend, over the years, among all four carriers to review fewer claims and to concentrate on those for the more expensive services, where potential savings are greatest.

In sum, one important goal of pretreatment review programs is to control overuse and, in turn, reduce claim costs. If more claims are reviewed, more overuse is identified and more money will be saved. However, while marketing, claims processing, and professional review agree that there is a point of diminishing returns, conflict among these groups arises over where the cut-off point lies. This is an inevitable result of the legitimate but competing goals among these three groups.

Other Limitations of Pretreatment Review

Several external factors also place constraints on the pretreatment review programs. A major one is the legal basis for the review system. Legally, the dental consultants can only deny payment for services on the basis of the terms specified in the contract. While contracts explicitly state which services are covered, they are much less clear in defining when services are not necessary or appropriate. Rejection of services for quality considerations becomes difficult because it involves the subjective evaluation of the dental consultant (*57–63*). There are many gray areas in dentistry where it is not obvious that services are both necessary and appropriate. No national or local standards have been developed to guide the consultant in his review. Therefore, when services are rejected because of quality, the insurance carrier may be in an uncertain legal position.

A related difficulty is the lack of a clear legal basis for dealing with problem dentists. Except in cases of fraud, which are rare and difficut to prove, there are no formal legal structures for restraining dentists who, for example, consistently provide more services than necessary. The existing control system is informal and functions through negotiations between the dental consultant and the provider on a case-by-case basis.

A third factor limiting the effectiveness of pretreatment review programs concerns the triad of power relationships among the carrier, the provider, and the patient. In a dispute between the carrier and the provider, the patient sometimes aligns himself with the provider against the company. As an example, when the company withholds reimbursement for claims, patients have a vested interest in supporting the provider in order to reduce their out-of-pocket expenses for dental care. As a result, patients complain to the union representative or directly to the carrier to increase the level of benefits. To maintain the good will of the purchaser and the patient, the pretreatment review program is sometimes forced into allowing services that are not in the best interests of the patient or the dental plan (*64*).

A final structural constraint on pretreatment review is the explicit expectation of all carriers that the review programs will be cost-effective within the context of the organization. That is, the savings from denial of services are expected to exceed the cost of administering the claims review. As a result, the emphasis in pretreatment review is denying payment for services which are unnecessary or not covered in the contract. The issue of under-treatment receives less attention.

The carriers' attitude that pretreatment review programs should save money is, in part, a reflection of the general attitude of the purchasers of dental plans. In the opinion of the insurance company executives interviewed, most purchasers of dental care would probably not be willing to pay for the pretreatment review system if the system's net effect were to increase claim costs. Therefore, cost containment through control of overuse obscures the possibilities of under-treatment.

Discussion and Conclusion

Within the next 5 to 10 years, the majority of Americans are likely to have access to privately or publically financed dental insurance. In this context, the importance of the pretreatment review system is clear. It is the major method for monitoring the cost and quality of ambulatory dental care presently operating in this this country. As such, it is certain to be a component of the utilization and quality assurance systems that may be established in a national health insurance plan (*65*).

The constraints on the operation of pretreatment review systems within insurance companies are inherent in any organization which must also market dental insurance and process claims. Even under a national health insurance plan, either administered by the insurance industry or directly by the Federal Government, there will be considerable demand for fast claim processing by patients and providers. Also, as with existing PSRO programs, there will be pressure on review agencies to be cost-effective. As such, it is not clear that a federally regulated pretreatment review system would differ substantially from the current system.

Other constraints on the effectiveness of pretreatment review systems are the lack of legal definitions of quality and of the legal bases for dealing with dentists who abuse the system. These legal problems result largely from societal definitions of the right of professional occupations to be self-regulating (*66*). As such, it is unlikely that insurance carriers will be able to resolve these issues by themselves. The eventual solution will require the development of formal relationships among the carriers, the profession, and public regulatory agencies such as professional standards review organizations (PSROs). Society has given PSROs the necessary legal authority to deal with issues of quality definition and to impose graded sanctions on providers who continually abuse the system. The potential of PSROs in the insurance industry has already been noted by many of the industry's leaders (*67,68*), suggesting that the formalization of relationships between the carriers and PSROs may only be a question of time.

Finally, perhaps the most important constraint on pretreatment review as a quality assurance system is the perception of dental plan purchasers regarding the purpose of the review system. Many appear to believe that a successful pretreatment system should reduce expenditures through the control of over-treatment. This belief certainly implies that review systems which improve quality but also increase program expenditures will not receive public support. If this interpretation is correct, an additional constraint on the further development of quality assurance systems may be the unwillingness of the public to pay for improved quality.

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